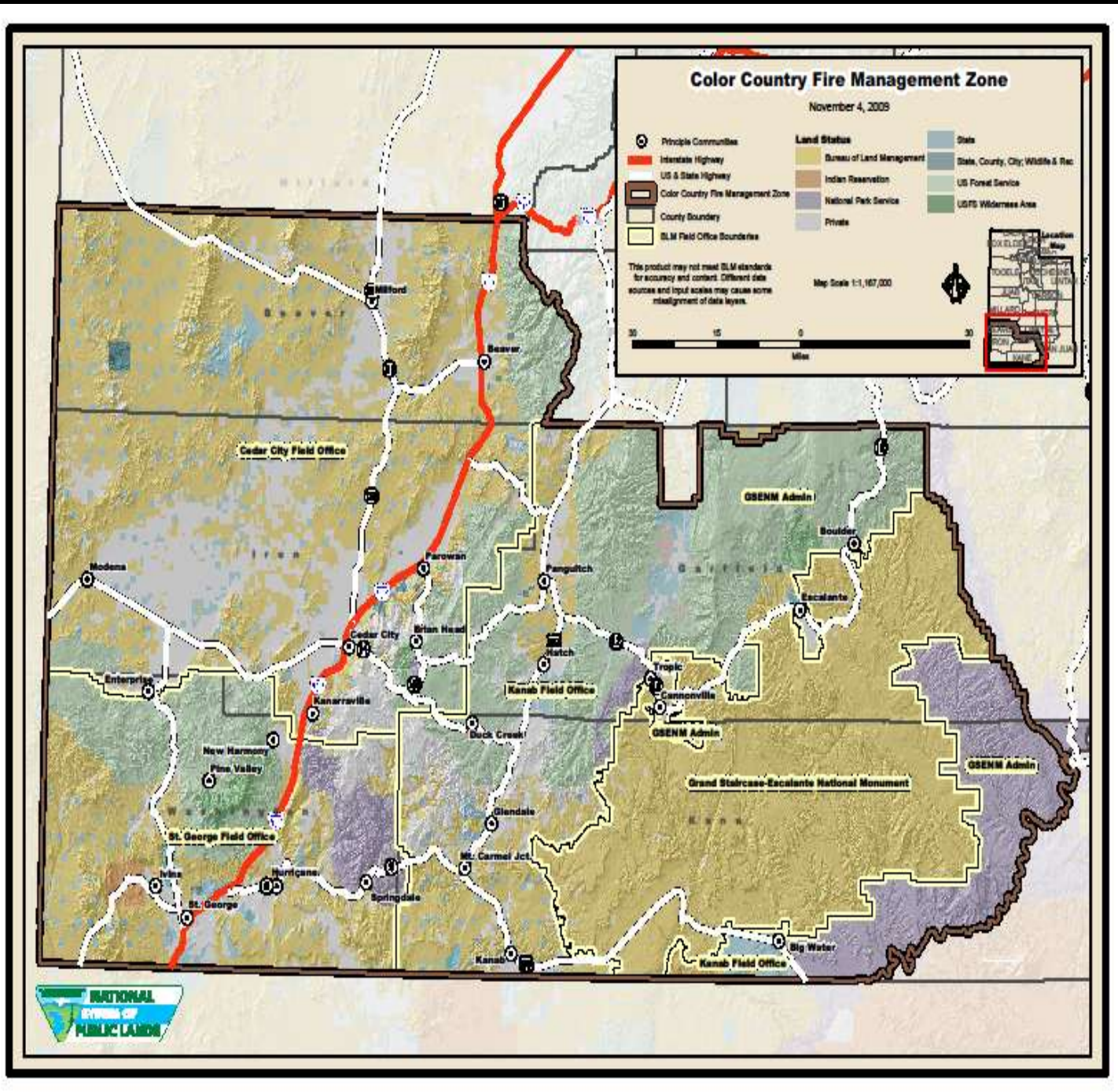


“Go Big or Go Home” Planning and Implementing Vegetation Management Projects at a Meaningful Scale



Color Country Fire Management Zone



Multiple Objectives/Partnerships

- Fuels Reduction**
- Watershed Restoration**
- Big Game Habitat Improvement**
- Sagebrush/Steppe Enhancement**

Landscape Challenges

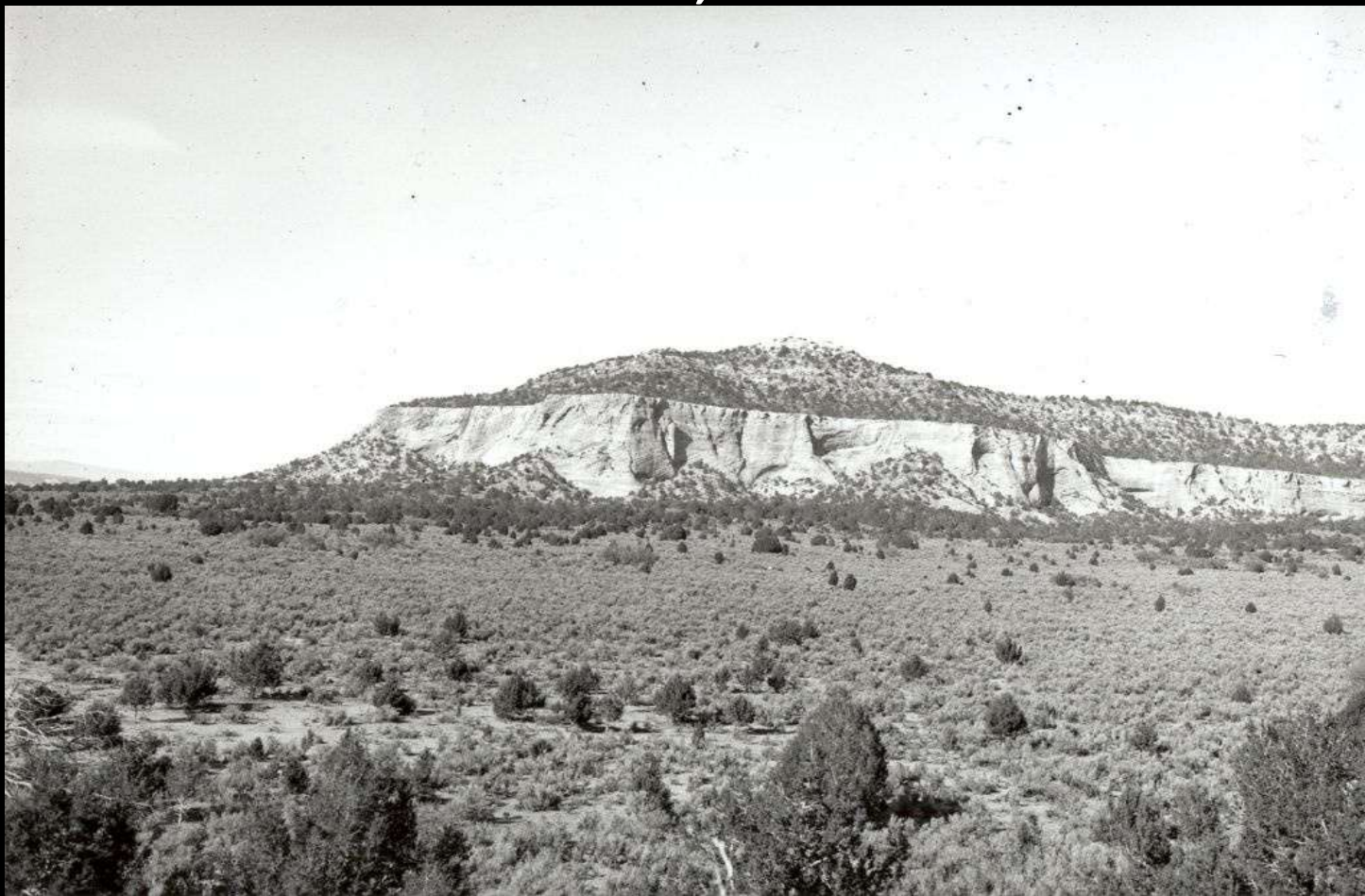
Alton, Utah 1909



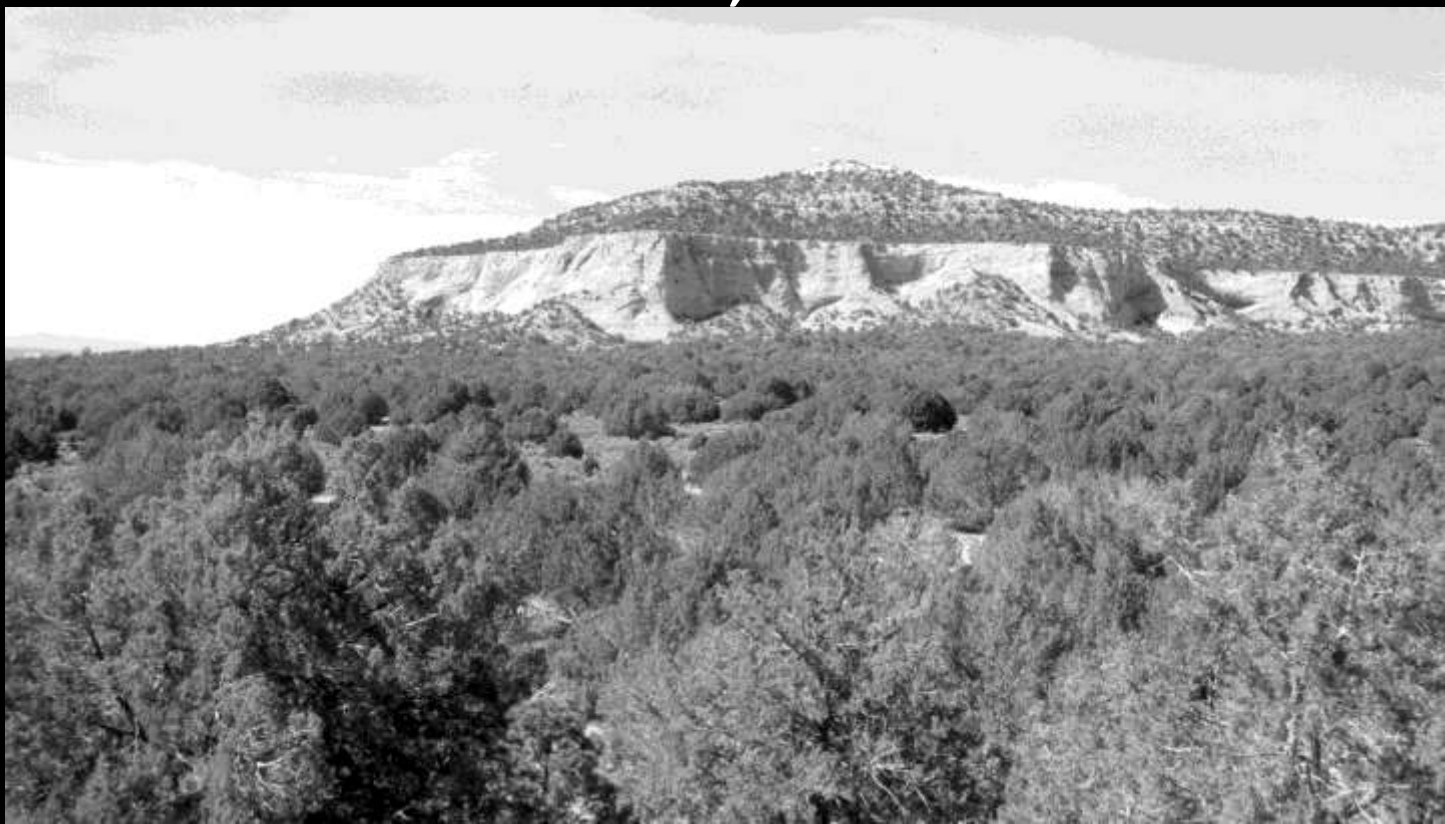
Alton, Utah 2004



Harris Point, Utah 1936



Harris Point, Utah 2006



Introduced Invasive Species Increase Fire Risk and Frequency



- Longer fire season
- Increased fire intensity and rates of spread

Proactive vs Reactive

Emergency Stabilization seeding



Prescribed Fire and Seeding via WRI



Aerial Application of Seed:



- Cost ranges from \$3/acre to \$30/acre depending on seed mix
 - Type of aircraft
 - Timing of application (competition)
 - Economy of scale
- * Note: Does not include price of seed*

Mechanical Treatments



Mastication:

Cost ranges from \$80 to \$480 depending upon slope, tree size and density, rock and/or topography, and competition.



These machines can be completely selective and avoid any browse species or individuals you want to retain in the treatment area.



Highway 18 Community Wildfire Protection:
Central and Dammeron Valley, Utah.



Seed bed prep and distribution of mulch

Mastication area immediately following treatment



Mastication area two growing seasons later



Dixie Harrow



- Treatment costs range from \$24 to \$65/acre
- Removal or kill of sage brush can be adjusted by adding or removing pipes from the implement.
- Seeding can be done in conjunction with a tractor mounted spreader.



Periodic maintenance to retain diversity



Area prior to seeding and Dixie Harrow treatment (one way) Photo taken on 08/08/2005



Dixie Harrow treatment five years later

Rangeland Drill



- Seeding costs range from \$12 to \$35/acre depending on market
- Conditions and economy of scale.

Chaining



- Chaining costs range from \$26 to \$45/acre and are greatly influenced by fuel prices and economy of scale.
- Intensity of treatment can be adjusted and varied across the project area by changing the spacing of the dozers or pattern of chaining
- High rate of production when compared to other treatment methods



- Most versatile and cost effective treatment method with greater slope and terrain capability as well as ease of treatment level alteration.
- Greatly improves seeding establishment and effectiveness by incorporating seed into soils.

The Ely Chain



Pig tail, swivel and Ely Chain



Seed bed preparation can be altered to achieve desired results by operators

Chaining treatment 4 years later



North Hills Lop and Scatter: Enterprise, Utah



Hand Thinning: Costs range from \$0 to \$185/acre depending on size and density of trees, terrain, and market conditions

Chipping/Cut and Pile



Forestry, Fire and State Lands

- Costs can range from \$160 to \$600/acre depending on tree size and density, topography and market conditions

Dedicated Hunter Program



Effective partnerships with
Utah Division of Wildlife Resources (UDWR)

South Beaver Hand Thinning Unit Before



South Beaver Hand Thinning Unit After



Prescribed Fire



- High Intensity/Severity



Bald Hills- Maple Springs Fire



- High fire intensity generated by high cover systems makes suppression difficult and costly.
- These fires require timely and aggressive emergency stabilization.

Managed vegetation provides opportunities for low cost/risk suppression and increased survival of perennial species



- Moderate Intensity/Low Severity



Reduction of Risk

**Prescribed
Fire**



Greenville Rx
August 2009

Mechanical Fuels Reduction Creates Opportunities for Firefighter Success



Greenville Rx
August 2009

Project Success









buckwheat
tansey mustard
heartleaf twistflower
spurge
prickly pear cactus
rubber rabbitbrush
utah juniper
pinyon pine

Greenville Bench All Native Seed Mix Area



indian ricegrass

bluebunch wheatgrass

western wheatgrass

bottlebrush squirreltail

muttongrass

intermediate wheatgrass

prickly lettuce

lewis flax

penstemon

dusty maiden

buckwheat

aster

locoweed

yellow sweet clover

agoseris

tansey mustard

cheatgrass

big sagebrush

broom snakeweed

prickly pear cactus

utah juniper



tansey mustard
locoweed
heartleaf twistflower
scarlet gilia
cheatgrass
prickly pear cactus
utah juniper
pinyon pine

Greenville Bench Native/Non-Native Seed Mix Area



indian ricegrass
bluebunch wheatgrass
intermediate wheatgrass
crested wheatgrass
bottlebrush squirreltail
muttongrass
locoweed
yarrow

prickly lettuce
lewis flax
dusty maiden
alfalfa
yellow sweet clover
small burnet
showy goldeneye
buckwheat

ball head gilia
aster
agoseris
tansey mustard
spurge
cheatgrass
prickly pear cactus
utah juniper

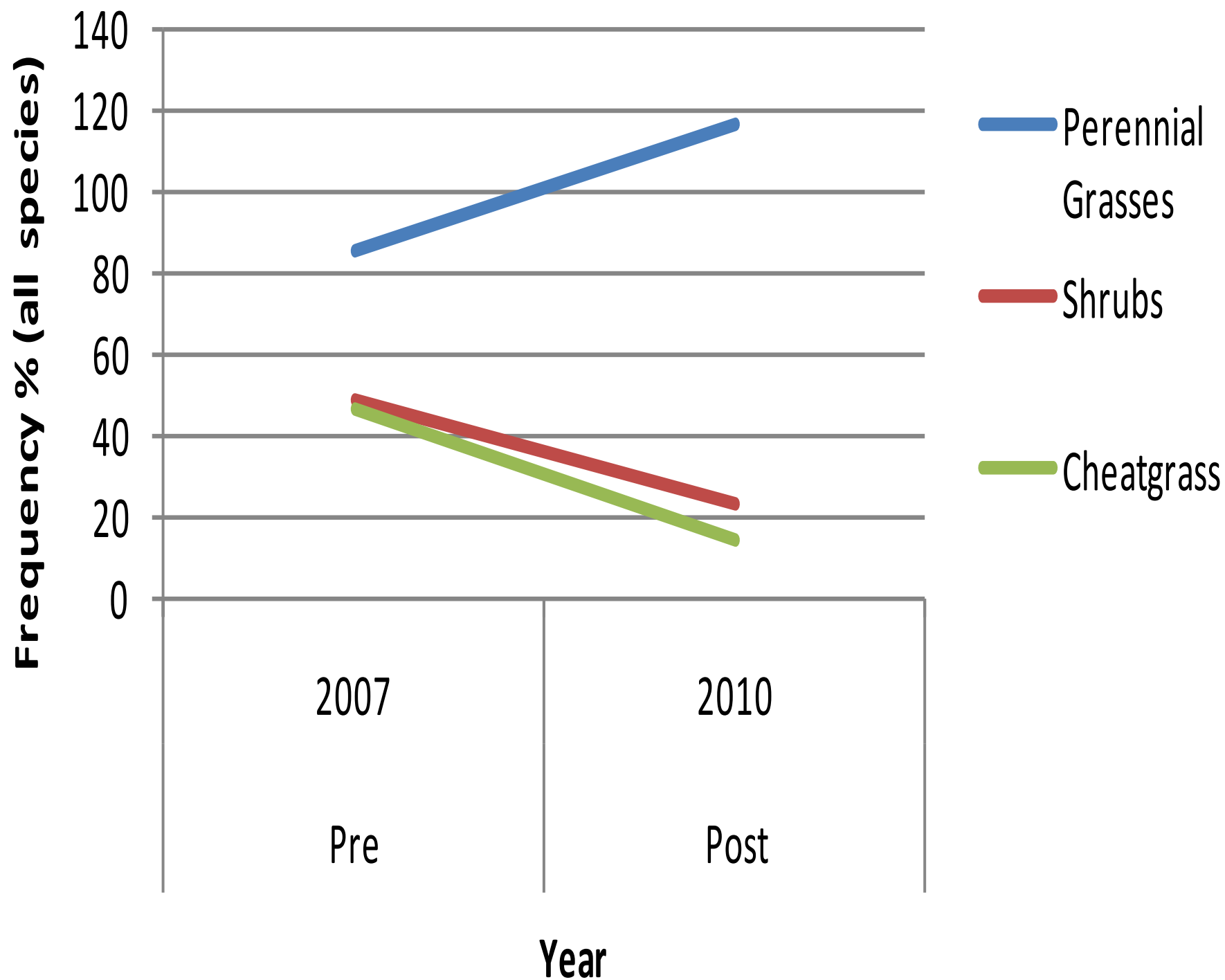
- How Do We Know These Treatments Work?



South Beaver Mastication

2007-2010

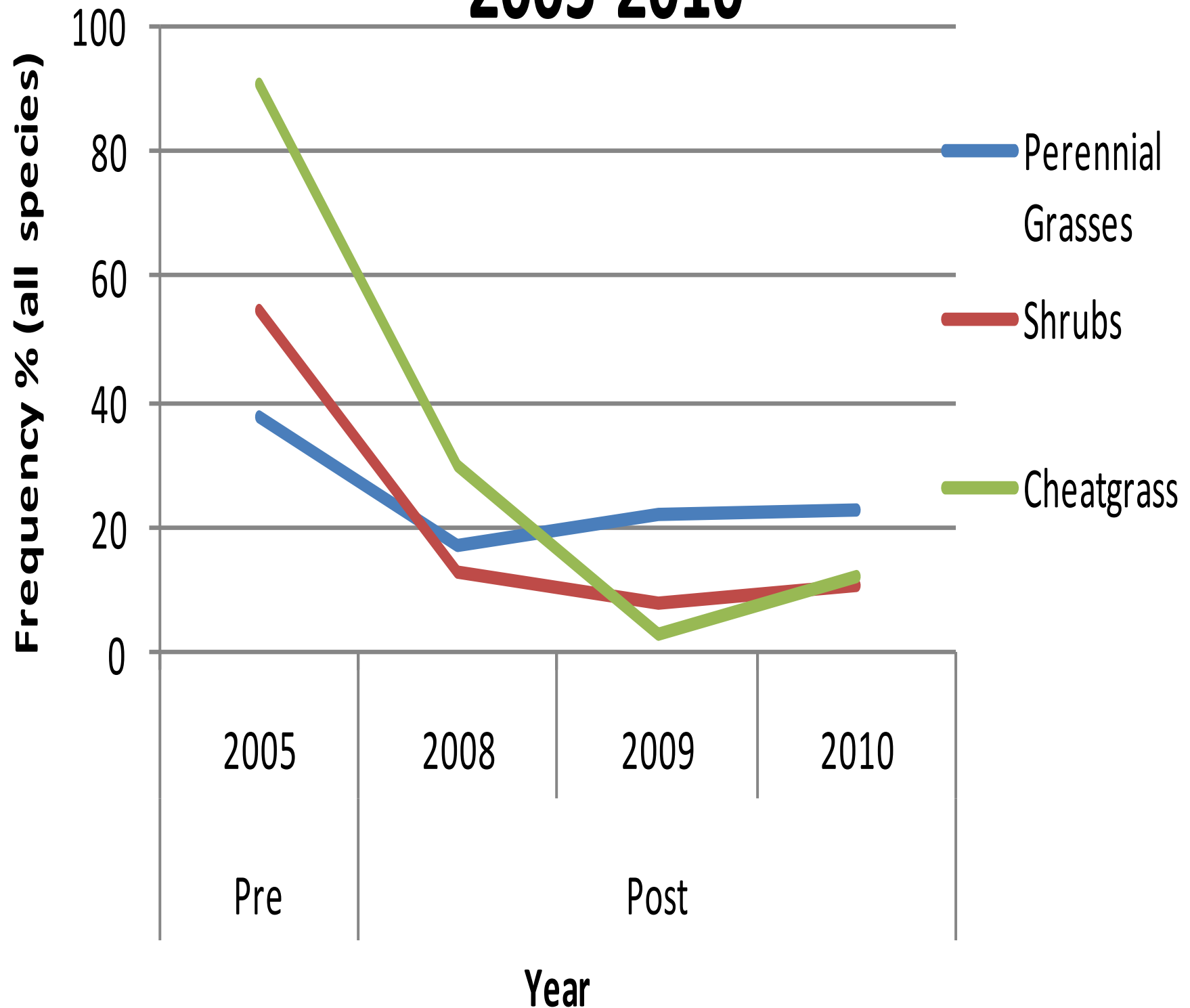
(Seeded)



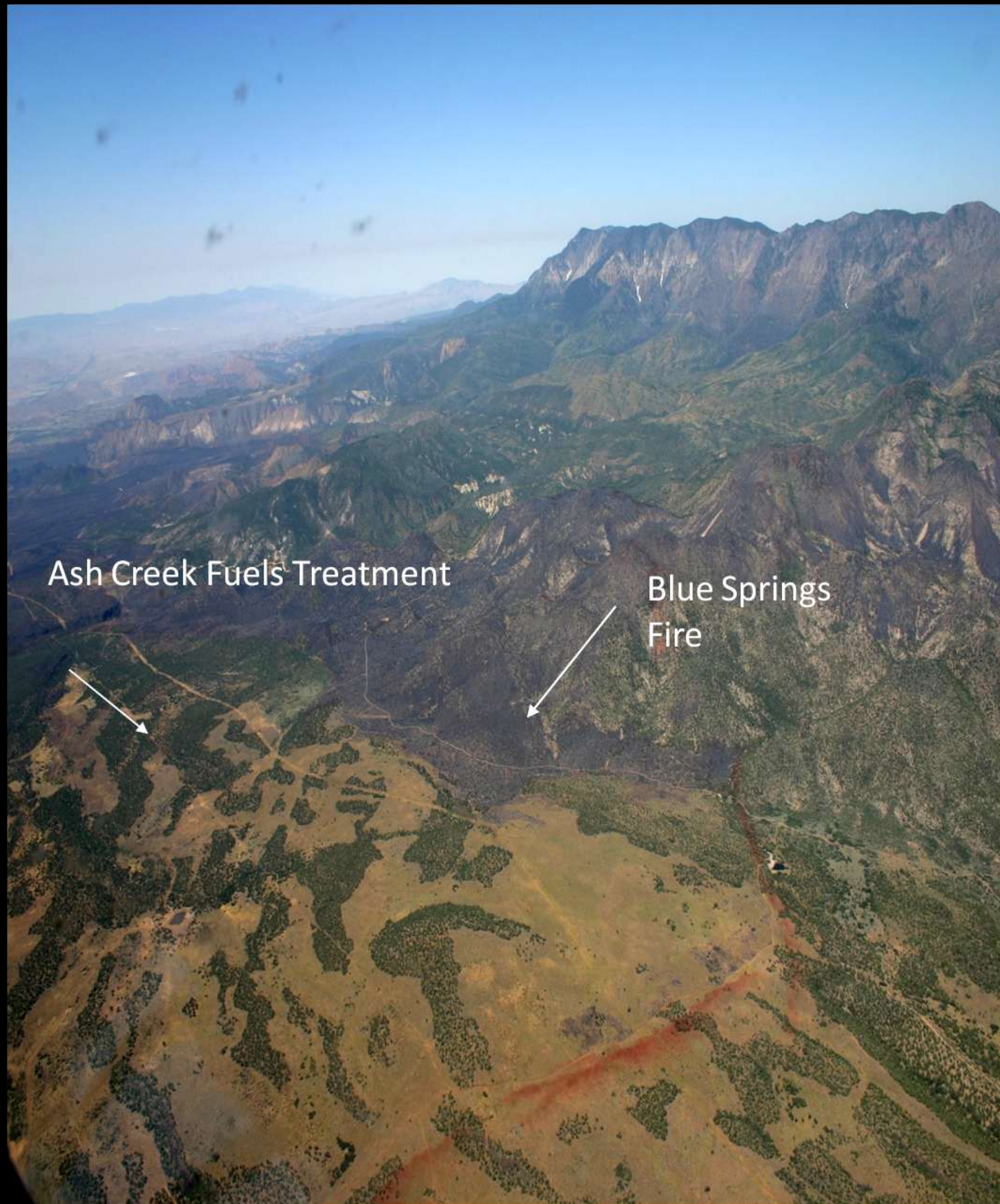
South Beaver Mastication

2005-2010

(Non Seeded Control)



Altering Fire Behavior



Ash Creek Fuels Reduction Project

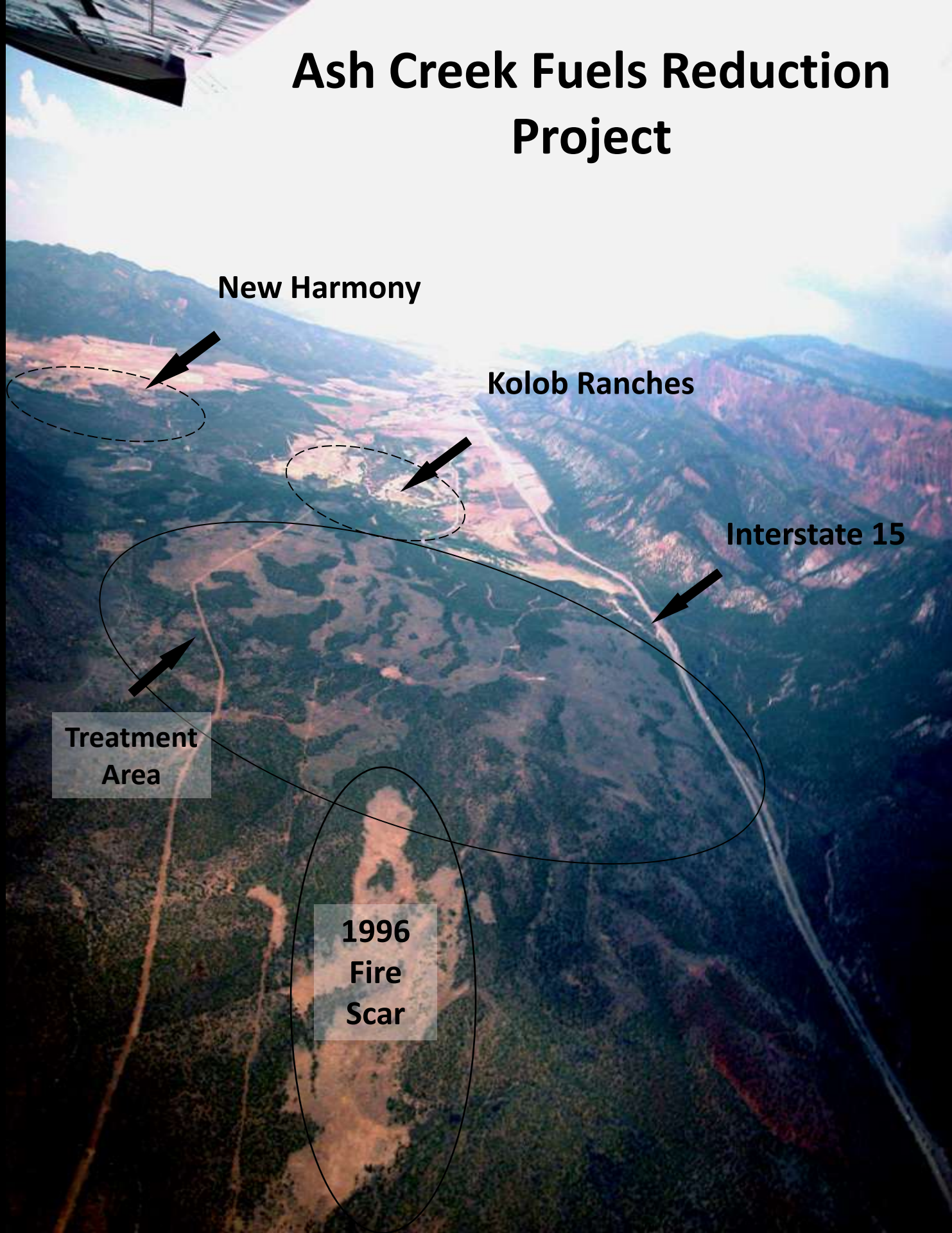
New Harmony

Kolob Ranches

Interstate 15

Treatment
Area

1996
Fire
Scar

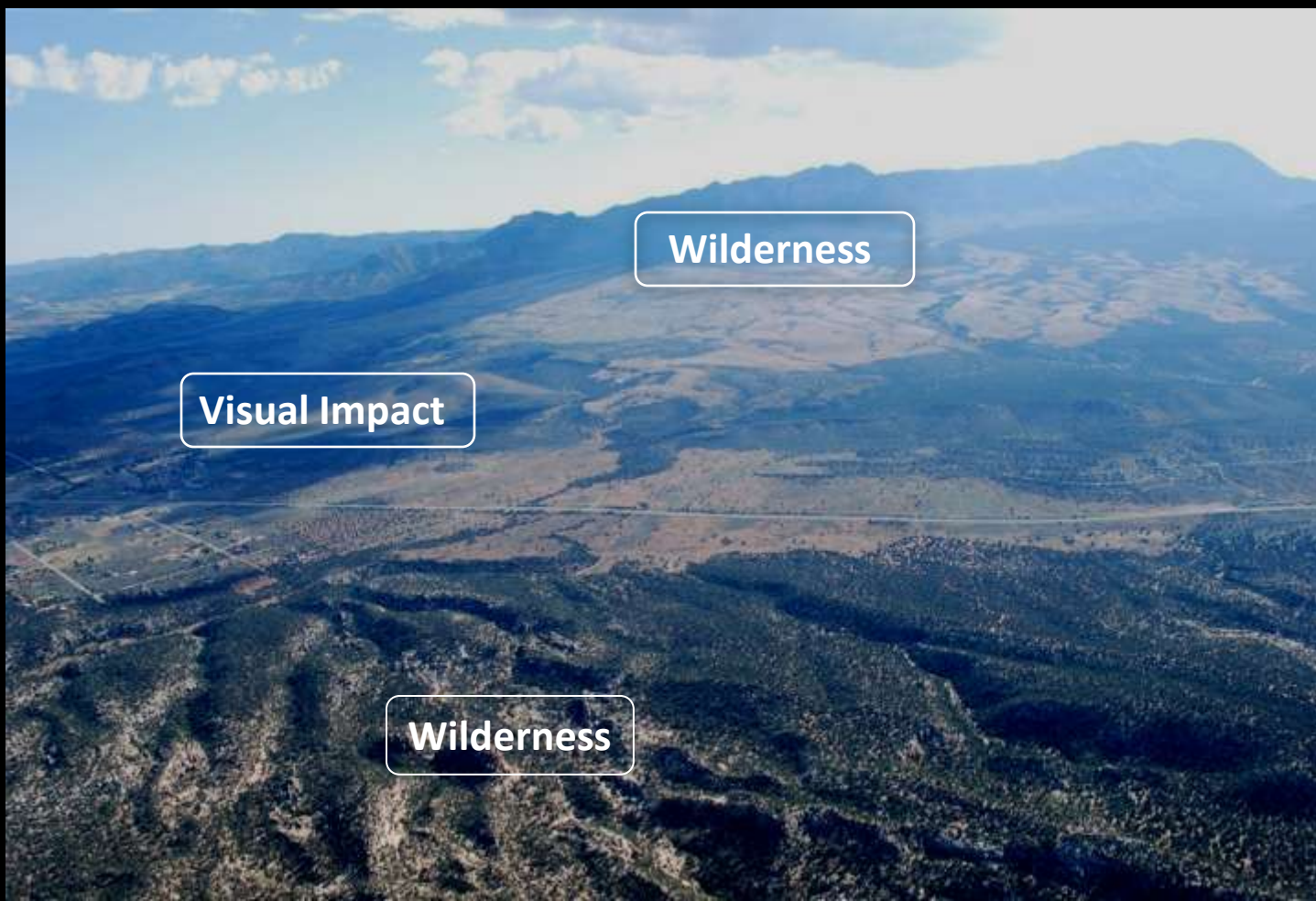


Landscape Level Treatments

- Go big or go home! (economy of scale)
- Cross jurisdictional boundaries
- Watershed level planning /NEPA/benefit
- Directed through current National Fire Plan, UWRI and BLM Healthy Lands Initiative Efforts
- Provides more opportunities for shared funding/resources.

Aerial Photos





Wilderness

Visual Impact

Wilderness







- Different Treatment Methods





- Additional Landscape Challenges









